



# Quick Shots

Idaho Immunization Program

Volume 3 Issue 2

## Jump in Mumps Cases Reported in the UK

**More than 8,000 confirmed cases were reported in 2004, highlighting the need for both doses of MMR.**

The United Kingdom has seen a significant jump in cases of mumps, mostly among people between the ages of 19 and 23, and officials fear the outbreak will threaten under-immunized children.

Two papers published in the May 14 edition of the *British Medical Journal* show the increase in cases and highlight the need for people to receive both doses of the measles, mumps and rubella (MMR) vaccine, according to the studies' researchers.

"Since 2004 the number of reported and confirmed cases of mumps has increased, culminating in the current epidemic," said Ravindra K. Gupta, specialist registrar in the department of infection at Guy's and St. Thomas' NHS Foundation Trust in London, and colleagues, in the first of the two papers. "As a result, doctors once again need to include mumps in the differential diagnosis of a broad range of conditions in adults and children."

In the second paper, Emma Savage, PhD, a scientist in the immunization department of the communicable disease surveillance centre at the Health Protection Agency in London, and colleagues detailed the increase in cases last year. Savage said that as of mid-May, there were 31,828 notifications for mumps in England and Wales for 2005.

### The 2005 situation

"The United Kingdom is in the grip of a nationwide mumps epidemic with almost 5,000 notifications in the first month of 2005 alone," Gupta et al wrote.

In the article about mumps outbreaks in 2004, Savage et al said that mumps notifications in England and Wales increased from 4,204 to 16,436 in 2004, with a total of 8,104 confirmed cases that year compared with 3,907 confirmed cases in the previous five years.

The recent outbreaks in the United Kingdom have mostly affected people born between 1982 and 1986 who did not receive the vaccine or had not been previously exposed, the study said.

"Only 2.4% (197/8,104) of confirmed cases in 2004 occurred in children who would have been offered two doses routinely – that is, those born between 1993 and 1999; only 29 of these had documented receipt of two doses of MMR," the researchers said in their study. "Only 62 cases (0.8%) have been confirmed in children born after 1999."

Jennifer Best, PhD, one of the authors of the 2005 review, said that a similar resurgence of mumps had been seen in the United States from 1986 to 1987, but mumps is now a rare disease.

"However, [U.S.] pediatricians should be aware of outbreaks in other countries as imported cases are possible," Best said.

The combined MMR vaccine was introduced in the United Kingdom in 1988 for children between the ages of 12 and 15 months of age, helping

to rapidly reduce the incidence of mumps. A second dose was introduced into the vaccination schedule in 1996.

The 2005 epidemic study also reviews the diagnosis, epidemiology and treatment of the disease.

### Two doses are the best bet

"This epidemic underlines the importance of ensuring that all children and young adults have received two doses of MMR," Gupta et al wrote in their conclusions.

The researchers in the Gupta et al paper said that the current two-dose MMR vaccine schedule is effective in preventing mumps, and no opportunity should be missed to offer the vaccine to those entering school, the age group at highest risk.

"The mumps component of the MMR vaccine used in the UK is believed to offer around 90% protection for one dose, although recent reports indicate that this could be as low as 64%," Savage et al wrote in their study comments. "This outbreak confirms that the current, two-dose MMR schedule is effective in preventing mumps."

Savage and colleagues suggested that the vaccination status of children leaving the school system be reviewed to make sure they received both doses.

"Other opportunities to offer MMR vaccine to the age group at highest risk, such as when entering university or other institutions, should also be considered," the researchers concluded.

by Judith Rusk

Staff Writer

Infectious Diseases in Children

### For more information:

Gupta RK, Best J, MacMahon E. Mumps and the U.K. epidemic 2005. *BMJ*. 2005;330(7500):1132-1135.

Savage E, Ramsay M, White J, et al. Mumps outbreaks across England and Wales in 2004: observational study. *BMJ*. 2005;330(7500):1119-1120. Sosin DM, Cochi SL, Gunn RA, et al. Changing epidemiology of mumps and its impact on university campuses. *Pediatrics*. 1989;84:779-784.

Gay NJ, Miller E, Hesketh L, et al. Mumps surveillance in England and Wales supports introduction of two dose vaccination schedule. *Comm Dis Rep CDR Rev*. 1997;7:R21-R26.

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# FDA approves first Pertussis Booster

June 2005

The FDA approved the first combination vaccine designed to boost immunity to pertussis in adolescents.

The tetanus toxoid and reduced diphtheria toxoid and acellular pertussis vaccine, adsorbed (Tdap; Boostrix, GlaxoSmithKline), is a single-dose active booster immunization for adolescents between the ages of 10 and 18.

"The introduction of [Tdap] marks a milestone in the fight against pertussis in the United States, particularly among adolescents who are an important reservoir for the disease and are often the source of infection for infants," said Gary Marshall, MD, professor of pediatrics at the University of Louisville School of Medicine in Kentucky, in a press release. "Adding pertussis to the current tetanus and diphtheria booster shot for teens is a logical strategy to prevent this disease in adolescents – without additional injections."

Reported cases of pertussis have risen nearly 20 times since 1976. According to the CDC, there were almost 20,000 cases in 2004, the highest number of reported cases in more than 40 years.

Although booster vaccines for adolescents containing tetanus and diphtheria are currently licensed and marketed for use in this age group, none contain a pertussis component. Boostrix has the same components as GlaxoSmithKline's Infanrix, a DTaP vaccine for infants and young children, but in reduced quantities.

The immune response measured the efficacy of the vaccine through antibody concentrations. The response to the tetanus and diphtheria components was at least as good as

the response to a licensed Td vaccine.

In one phase-3 clinical trial, 4,114 healthy 10- to 18-year-old adolescents were vaccinated with one dose of the vaccine or a U.S.-licensed Td vaccine. Each adolescent had completed his or her routine childhood vaccinations against diphtheria, tetanus and pertussis according to the current routine immunization schedule.

In both groups, 99.9% or more of adolescents had anti-diphtheria and anti-tetanus concentrations of 0.1 IU/mL or higher, indicating seroprotection against the two diseases.

In the Tdap vaccine group, the levels of anti-pertussis antibodies, anti-PT, anti-FHA and anti-PRN were measured and were statistically higher than pertussis antibody concentrations observed in infants, following primary immunization with a DTaP vaccine. The overall safety profile was comparable between the two vaccine groups.

Adverse events include pain, redness and swelling at the injection site. The frequency of redness and swelling after the new vaccine was similar to what is expected following administration of a Td vaccine; however, pains at the injection site were more frequent with those who received the new vaccine.

Other side effects include headache, fever and fatigue for a short period after injection.

*Infectious Diseases in Children*  
June 2005

Almost 20,000 cases in 2004, the highest number of reported cases in more than 40 years.

## Immunization Scrambled Word

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Answers in the next edition

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# Sentinel Providers Sought

The Idaho Immunization Program is looking for providers to participate in the Centers for Disease Control and Prevention (CDC) Influenza Sentinel Provider Surveillance Network.

Starting in October and continuing year-round, ILI (Influenza Like Illness) sentinel sites will report weekly counts of visits due to influenza-like illness to CDC via the web. Most participating sites report that this activity takes less than 30 minutes per week.

Providers in any specialty that provide primary care are eligible, including family practice, internal medicine, pediatrics, infectious disease, OB/GYN and emergency medicine. Surveillance can be conducted in a variety of sites including private provider's offices, emergency rooms,

urgent care centers, colleges, university student health centers, and health maintenance organizations.

Sentinel providers monitor the impact of influenza activity in the outpatient setting. On a larger scale, sentinel reports may provide advance warning of an emerging influenza pandemic. The Idaho Immunization Program urges Idaho providers to volunteer for this program.

If you are interested in participating or would like additional information, please call or email Rebecca Coyle, IIP Assessment Specialist, at (208) 334.6994 or [CoyleR@idhw.state.id.us](mailto:CoyleR@idhw.state.id.us)



## Back to School Rush Begins

Children will be heading back to school shortly. Don't forget to order enough vaccine before the rush! This year children entering Preschool and Kindergarten are required to have booster doses of MMR and DTaP.

The "kindergarten shots" as they are commonly known include a booster dose of DTaP, IPV and MMR. Idaho's new school requirements do not include IPV even though it is strongly recommended that children receive a booster dose between the ages of 4 and 6.

Three important rules to remember for the 4-6 year booster series are:

- ◆ Not all children are eligible for a fifth dose of DTaP. Children who received their 4th dose of DTaP on or

after their 4th birthday do not need a 5th dose for school entry.

- ◆ Both doses of MMR must be administered on or after the first birthday and separated by at least four weeks.
- ◆ If a child received their 3rd dose of IPV on or after 4 years of age a 4th dose is not needed.

Preliminary numbers estimate that approximately 20%-30% of children enrolling in school will not have received their booster doses. We encourage providers to account for this and order additional amounts of vaccine before the back to school rush.

Don't forget to order enough vaccine for back to school!

## Vaccine Moves

Each year the IIP experiences two major types of loss to our vaccine supply. The first major loss is due to expired vaccine. Since January 2005 the amount of expired vaccine has amounted to \$51,867. The second type of loss is temperature incidents which have amounted to \$30,858 since January of 2005.

The IIP is currently reviewing monthly vaccine accountability reports submitted by each provider to locate vaccine that is at risk of expiring. Over the past few weeks IIP staff members have been moving the vaccines at risk. This process is expected to continue for the next couple of months.

Unfortunately, we are unable to identify all vaccines that need to be moved; however, with a little help from each provider we can reduce the amount of wasted vaccine.


A few helpful tips to reduce wasted vaccine are:

1. Providers should not order more than a 2 to 3 month supply of any vaccine. We have scheduled shipments once every two months, the IIP can also fill emergency shipments if needed.

2. If a provider has vaccine that will not be used within three months of the expiration date, contact the IIP for assistance. The IIP attempts to screen each vaccine order to ensure a provider is not ordering too many or too few doses of vaccine. The IIP will reduce, or add to orders when appropriate.

3. To help reduce the amount of wasted vaccine, providers using combination vaccines should remember that single antigen vaccine use should decrease.

With some vaccines costing over \$60 per dose, reducing waste is not only prudent, it is essential to ensure an adequate supply of vaccine for our children.



# Decreasing the Incidence of Missed Opportunities

The Idaho Immunization Program is conducting third and fourth round Quality Assurance Reviews (QAR) with most VFC providers. The majority of providers now have office systems in place to implement very effective immunization programs. The next step in the process is to screen children's immunization status at both well-child and sick-child visits. It is very common to see low immunization rates in an office that does not screen the immunization status of a patient during a sick-child visit, or the provider checks immunization status but prefers not to immunize a sick child. In the latter instance, providers usually express the practice does not immunize children at sick-child visits, but they will immunize the patient during a follow-up visit within a couple of weeks. However, chart reviews indicate that many children fail to return for follow up vaccinations.

We strongly encourage all providers to become educated about the true contraindications to childhood vaccinations. The Idaho Immunization Program can provide you with a

"Guide To Contraindications To Vaccinations" or the "Everything Poster", which also details true contraindications. There are very few "true" contraindications, and you may be missing important opportunities to immunize children.

If a provider chooses not to immunize a child when he or she is sick, the provider must become very conscious about making sure the child returns for a follow-up visit to receive immunizations. A strong tracking system will identify children who are behind and follow up vaccinations can be administered.

If your office implements one or both of the above activities, your rates will increase quickly. If you are unsure of your missed opportunity rate, ask your Quality Assurance specialist at the next QAR visit or request your QAR specialist to run a missed opportunities report for your office.

## *Thank you to our 2004-2005 Volunteer*

### *ILI Sentinel Site Providers*

◆ Saltzer Medical Group ◆ Valley Medical Center ◆ Total Family Medicine ◆ Capital City Family Medicine ◆ Nimiipuu Health ◆ Family Practice Medical Center ◆ Gritman Medical Center ◆ Group Health Cooperative ◆ Joseph Ippolito MD ◆ Southeast Idaho Family Practice ◆ Nancy Perry Clinic ◆ Genesis Medical Center

## Test Your Knowledge

1. What year did the FDA recommend all vaccine manufacturers remove thimerosal from childhood vaccines?
2. What state supplied vaccines contain thimerosal?
3. True or False? Every student entering kindergarten needs 5 DTaP's?
4. What immunizations are required for school entry?
5. Which type of mercury was contained in thimerosal?
6. What year did the United States stop using OPV?
7. What two vaccines need to be readministered if the wrong needle is used?
8. What is the maximum age DTaP can be administered?
9. True or False? Is it a good idea to save your IRIS password on your computer?

Answers on page 6



# Calendar of Events

## Future Dates

### August 2005

#### Booster Shots

- ◆ 8/17 Nampa
- ◆ 8/30 Post Falls
- ◆ 8/31 Lewiston

### September 2005

#### Booster Shots

- ◆ 9/1 Grangeville
- ◆ 9/13 Twin Falls
- ◆ 9/14 Idaho Falls
- ◆ 9/15 Ketchum

### October 2005

#### School Nurses Conference

- ◆ 10/6-7 CDA

## August 2005

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			
		Booster Shots Post Falls	Booster Shots Lewiston			

## September 2005

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	
		Booster Shots Twin Falls	Booster Shots Idaho Falls	Booster Shots Ketchum		

## October 2005

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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2	3	4	5	6	7	8
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30	31					
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# Coordinators Corner

Hello everyone! I hope your summer is going well. Though bittersweet, I have officially returned from maternity leave.

## Recent program highlights

**Staff Changes:** The program has had several staff changes that we would like to share with you all. At the beginning of the year, Janet Jacobs left to pursue opportunities more in line with her degree and Rebecca Munsey (formerly with the IIP) graciously agreed to return to our program to work as our Technical Records guru. We are excited and delighted to have her back in the program. In addition, as of the beginning of June, Coleen Olaf decided to pursue different career options as well. We are currently searching for a new Quality Assurance Review Specialist to fill this vacancy. We look forward to introducing the new person in our next edition.

**Montana Jury finds Hospital Negligent for not Vaccinating Teenager:** March 2005, a Montana jury ruled that Community Medical Center must pay a Missoula family \$1.3 million because their teenage son was not given the pneumococcal vaccine that would have prevented his death. This case was based not only on the lack of vaccination but by the fact that the Physician's Assistant did not review and verify the teenagers immunization status during a previous hospitalization. This jury award may set precedence for verification of vaccination status during all visits and vaccination of children during sick visits. The full news story can be accessed on the Web site of the Missoulian newspaper at <http://www.missoulian.com/articles/2005/03/15/news/local/news05.txt>.

## FDA Approves a New Combination Vaccine to Help Protect Adolescents and

**Adults against Whooping Cough:** On June 10<sup>th</sup>, the Food and Drug Administration (FDA) approved a new vaccine for a single booster immunization against pertussis (whooping cough), in combination with tetanus and diphtheria, for adolescents and adults 11-64 years of age. Reported cases of pertussis have risen nearly 20 times since 1976 in this age group. According to the CDC, there were almost 20,000 cases in 2004, the highest number of reported cases in more than 40 years. The vaccine will be marketed as Adacel. Adacel is the first vaccine approved as a pertussis booster for adults. Vaccines for prevention of tetanus and diphtheria (Td vaccine) in adolescents and adults have been available for many years. In addition, the FDA approved a similar vaccine called Boostrix for use in adolescents 10-18 years of age earlier in the year. Since 1980, the rates of reported pertussis cases have been increasing in adolescents and adults, as well as in young infants. Adolescents and adults have been implicated as the source of pertussis infection for susceptible young infants, and other family members. To view the FDA's press release, visit <http://www.fda.gov/bbs/topics/ANSWERS/2005/ANS01361.html>.

**Track Status of New Vaccines:** The American Academy of Pediatrics (AAP) recently announced the development of a new resource for tracking the status of licensure and recommendations of new vaccines. "Red Book® Online Table – NEW"

"Status of Licensure and Recommendations for New Vaccines" is part of AAP's *Red Book Online*, a compendium of information on childhood infectious diseases. To access this web page, which will be updated as changes occur, visit <http://aapredbook.aappublications.org/news/>



## 2005 Shot Smarts and Booster Shots

The Idaho Immunization Program would like to thank all those who attended the 2005 Shot Smarts Conference. Shot Smarts set an attendance record in 2005 with over 430 attendees.

For those who were unable to attend Shot Smarts, mark your calendar for the upcoming Booster Shots workshops. The locations of the 2005 Booster Shots workshops are: Nampa August 17<sup>th</sup>, Post Falls August 30<sup>th</sup>, Lewiston August 31<sup>st</sup>, Grangeville September 1<sup>st</sup>, Twin Falls September 13<sup>th</sup>,

Idaho Falls September 14<sup>th</sup>, and Ketchum September 15<sup>th</sup>. Booster Shots will be a 4 hour overview of Shot Smarts and the new school and childcare immunization requirements. Participants can receive 3.8 contact hours for attending.

The 2006 Shot Smarts Conference will be held in Boise April 25<sup>th</sup>, Pocatello April 26<sup>th</sup>, and Coeur d'Alene April 28<sup>th</sup>. The 2006 keynote speaker will be William Atkinson, MD. Watch for your invitation brochure in March of 2006.



### Answers from page 4

1) 1999 2) None, all vaccines containing thimerosal expired in January of 2003 3) False, if a child received their 4th dose of DTaP after the age of 4 they do not need a 5th dose for school entry 4) For Kindergarten: 5 DTaP, 3 Polio, 2 MMR, 3 Hepatitis B For all other grades: 4 DTaP, 3 Polio, 1 MMR, and 3 Hepatitis B if the student was born on or after 11/22/1991 5) Ethyl mercury 6) 2000 7) Hep B and Rabies 8) 6 years 9) False



# Varicella Vaccine Success Varies Throughout the U.S.

June 2005

Data from the CDC's National Immunization Survey (NIS) show that 84.8% of children ages 19 to 35 months received the varicella vaccine in 2003 nationwide.

The national coverage rate was 12.2% in 1996, the first year in which the Advisory Committee on Immunization Practices (ACIP) added the varicella vaccine to the routine childhood immunization schedule.

"In a nutshell I can say that we've made very rapid progress as a nation in the past 10 years," David Neumann, PhD, executive director of the National Immunization Program (NIP), said in a recent teleconference.

This year also marks the 10th anniversary of the varicella virus vaccine live (Varivax; Oka, Merck). Prior to its licensure in 1995, an estimated 4 million people were infected with varicella each year, with 11,000 requiring hospitalization.

## Coverage rates

Data from the Chickenpox Report Card show that varicella vaccine coverage varies between 67% and 93% across the country.

However, an estimated 600,000 children between the age 19 to 35 months were not vaccinated against varicella in 2003 (15.2%), Neumann said.

The ACIP, the AAP and the American Academy of Family Physicians recommend routine vaccination of all appropriate at-risk children 12 months of age and older. Most states require vaccination, usually targeted at specific populations, such as children entering day care, kindergarten, first grade or middle school.

Those states with 90% or better coverage are Connecticut (93.2%), Kentucky (91.6%), Alabama (91.3%), Rhode Island (90.7%), Georgia (90.5%) and Maryland (90.4%). Those states with less than 70% coverage are Washington (66.6%), South Dakota (68.4%) and Wyoming (68.6%).

Between 1995 and 2001 a 75% decline in varicella-related hospital discharges was observed nationwide, and in 2002, there were nine varicella-related deaths reported compared with an estimated 100 annual deaths before 1995.

"We in the public health community are particularly excited by these results because it demonstrates that we are making progress toward achieving the Healthy People 2010 objectives," Neumann said. "In the late 1990s, led by the U.S. Department of Health and Human Services, public health experts around the country agreed that by 2010, 90% of children 19 to 35 months of age should be protected against chickenpox. And already at mid-decade, we are very close to achieving that goal on a national level and certainly many states have already met or exceeded

that 90% goal."

Neumann said that early data from 2004 continue to show improvement, but those numbers are not yet available.

Richard Jacobs, MD, president of Arkansas Children's Hospital Research Institute and chief of pediatric infectious diseases at the Arkansas Children's Hospital, said when the vaccine was licensed, uptake was slow in Arkansas. There were some pediatricians who were proactive in vaccinating, however.

Getting the vaccine added to the state's immunization requirements and covered under programs such as Vaccines for Children helped increase coverage rates in the state, which stand at 88.3% per the 2003 data.

Jacobs said the current concern facing Arkansas is the vulnerability of children approaching middle school who may not be immunized because they were missed by vaccination in their early years.

Christopher Rizzo, MD, program director of Maximizing Office-Based Immunization, a program administered by the Ohio Chapter of the AAP, said he has seen first-hand the serious complications of varicella among his own pediatric patients.

In February 2005, Rizzo said Ohio legislators signed legislation, making kindergarten school entry requirements effective starting fall 2006. Coverage in 2003 in Ohio was 81.5%.

"School requirements are an extremely effective way to increase immunization rates by making parents aware of the importance of these vaccines if they were not immunized previously," Rizzo said.

There are several states that do not have varicella vaccination requirements: Washington, Arizona, Idaho, Vermont, Wyoming and Montana. However, in Washington and Arizona, there is draft legislation under review that would ultimately require vaccination before entry into day care, elementary or middle school.

"We still have considerable work to do and we recognize that the progress that has been made heretofore is a reflection of the commitment of health care professionals, public health officials, parents and day care and school personnel to improve the health of children, and we applaud their efforts to reduce the burden of chickenpox nationwide," Neumann said.

*by Judith Rusk,  
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Infectious Disease in Children*

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For Program Updates  
Check the IRIS Website...  
<https://iris.idhw.state.id.us/irisweb/main.jsp>



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### Health Department Contacts

<i>District</i>	<i>Contact</i>	<i>Phone Number</i>
1. Panhandle Health District	Mareva Kammeyer, Provider Training/IRIS	(208) 667-3481
2. North Central District Health Dept.	Colleen Edmison, Provider Training Kim Nelson, IRIS	(208) 799-3100 (208) 799-3100
3. Southwest District Health	Jacque Walker, Provider Training Debbie Dobbs, IRIS	(208) 455-5300 (208) 455-5300
4. Central District Health Dept.	Teresa Phillips Provider, Training/IRIS	(208) 375-5211
5. South Central District Health	Lisa Klamm Provider, Training/ IRIS	(208) 734-5900
6. Southeast District Health Dept.	Kelley Tillotson, Provider Training Judy Hooper, IRIS	(208) 233-9080 (208) 233-8090
7. District VII Health Department	Nikki Sayer, Provider Training/ IRIS	208) 522-0310